Volatility transmission and volatility impulse response functions in European electricity forward markets

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Auteur	Le Pen, Yannick [1], Sévi, Benoît [2]
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Résumé en anglais	Using daily data from March 2001 to June 2005, we estimate a VAR-BEKK model and find evidence of return and volatility spillovers between the German, the Dutch and the British forward electricity markets. We apply Hafner and Herwartz [2006, Journal of International Money and Finance 25, 719-740] Volatility Impulse Response Function (VIRF) to quantify the impact of shock on expected conditional volatility. Weobserve that a shock has a high positive impact only if its size is large compared to the current level of volatility. The impact of shocks are usually not persistent, which may be an indication of market efficiency. Finally, we estimate the density of the VIRF at different forecast horizon. These fitted distributions are asymmetric and show that extreme events are possible even if their probability is low. These results have interesting implications for market participants whose risk management policy is based on option prices which themselves depend on the volatility level.
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